



The Agriculture Program

The Texas A&M University System

2006 Texas Panhandle Forage Sorghum Silage Trial

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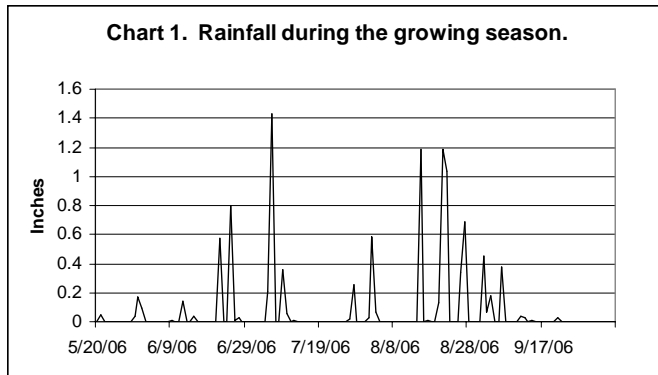
Texas Cooperative Extension and Texas Agricultural Experiment Station

Introduction

The summer of 2006 we completed our seventh year of consecutive sorghum silage variety trials conducted at the Texas Agricultural Experiment Station Bush Farm, located approximately 8 miles west of Amarillo. Results of trials from previous years can be found at <http://amarillo.tamu.edu/programs/agronomy/>. As in previous years hybrids compared included brown midrib (BMR), photoperiod sensitive (PS), forage sorghum, grain sorghum, sorghum/sudangrass, and sudangrass. Corn was grown adjacent to the sorghum plots for comparison, and was planted, irrigated, and fertilized identically to the sorghum.

Methods and Materials

The trial was made up of 88 hybrids provided by seed companies. Several male sterile hybrids were included. These were all capable of producing grain due to cross-pollination that occurred in the field with other hybrids. Seed companies will provide pollinator seed for male sterile hybrids if desired. The hybrids were planted in a randomized block design in four row plots planted on 30-inch raised beds. Irrigation was applied by furrow and the three replications (blocks) were stacked with the first replication being closest to the gated pipe, followed by the second and third replications. Irrigation scheduling was determined by monitoring gypsum blocks placed in the soil at depths of 1, 2, and 3 feet. Gypsum blocks were read every two to three days and plots were irrigated when the average of the three moisture blocks fell below 60. Approximately 12.4 inches of water was applied during the season along with two pre-irrigations totaling 8.9 inches. Rainfall totaled 12.4 inches during the growing season (May 20 – Oct 6) (Chart



1). Each hybrid was harvested for forage yield when grain reached the soft dough stage. Photoperiod sensitive hybrids were harvested on the last harvest date of the season (Oct 6).

For comparison, two corn hybrids, NC+ 7117 and NC+ 7373RB, were planted adjacent to the sorghum trial in a 200-ft strip on six 30-inch rows at 32,000 seed/acre. Herbicide, fertilizer, and

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irrigation application was applied identically to the forage sorghum. Four samples were collected for yield and nutrient composition determination when the kernel milkline had advanced 1/2 to 2/3 of the way down the kernel on Sep 22nd.

Other cultural practices and study information are listed below:

Trial Location:	Bush farm located one mile north of Bushland, TX
Cooperator:	Texas Agricultural Experiment Station
Previous Crop:	Wheat
Soil Type:	Pullman Clay Loam, pH = 7.4
Plot Size:	Four, 30 inch rows by 25 ft
Replications:	3
Study Design:	Randomized complete block
Planting Date:	May 25, 2006.
Planting Rate:	120,000 seed/acre
Seed Method:	John Deere Max-emerge Planter
Fertilizer:	No fertilizer added. Soil tests indicated there were enough residual N and P for a 30 ton silage crop
Herbicide:	One lb/acre atrazine applied immediately after planting
Irrigation:	Furrow irrigated based on moisture block readings Approximately 12.4 inches applied during the growing season The PS hybrids received an additional late season irrigation of 3.9 inches on September 21.
Silage Harvest Date:	Plots were checked weekly and harvested when grain was in the soft dough stage. Harvest dates ranged from September 11 to October 6 and are reported in Table 3.
Grain Harvest Date:	November

Data Collected:

- Plant height (ft) at silage harvest.
- Lodging at silage harvest. Percent of fallen or significantly leaning plants per plot.
- Silage yield. Collected at or near the soft dough stage from 10 feet of row. Yield is reported at 65% moisture in tons/acre.
- Nutrient analysis: Whole plant sub-samples were collected from the yield sample immediately after harvest, chopped, and frozen. These sub-samples were sent to Dairy One Laboratory, Ithaca, NY for analysis. All nutrient constituents were adjusted to a 100% moisture-free basis.
- Grain yield was collected from 10 feet of row from each plot. Samples were thrashed and yield reported in lb/acre. No moisture correction was made.
- Key Nutrient Analysis Definitions
 - Crude Protein:** 6.25 * % total nitrogen.
 - TDN:** Estimate of total digestible nutrients
 - NDF:** Neutral detergent fiber; cell wall fraction of the forage.
 - ADF:** % acid detergent fiber; constituent of the cell wall includes cellulose and lignin; inversely related to energy availability.
 - NEI:** Estimate of Net Energy for lactation.

NEm:	Estimate of Net Energy for maintenance
NEg:	Estimate of Net Energy for gain
IVTD:	% in vitro true digestibility; positively related to energy availability
NDFD:	Digestible NDFD. $NDFD = 100 * [1 - (100 - IVTD)/NDF]$. Reflects the influence of lignin on fiber digestibility.
RFQ:	Relative Forage Quality is an index for comparing forages. RFQ is calculated from CP, ADF, NDF, fat, ash and NDF digestibility measured at 48 hours. It should be more reflective of the feeding value of the forage. RFQ is based on the same scoring system as RFV with an average score of 100. The higher the RFQ, the better the quality.

Results and Discussion

A summary of yield, agronomic traits, and nutrient composition, are reported by groups of different sorghum types along with corn in Table 1. See Table 3 for a listing of each specific hybrid's agronomy characteristics, yield, and nutrient composition.

Weather conditions during the preceding winter and spring were exceptionally dry requiring the test area to be pre-irrigated twice prior to planting. Conditions remained dry through May and most of June (Chart 1). Significant rainfall was finally received in late June and the first part of July and again from mid-August through early September. All forage sorghum entries were irrigated the same with the exception of the photoperiod sensitive entries receiving an additional late season irrigation of 3.9 inches.

BMR forage sorghum silage yield was approximately 5.5% less than nonBMR forage sorghum (Table 1). In previous years the difference has been closer to 11%. As in previous years the highest yielding hybrids were the Photoperiod nonBMR entries averaging approximately 27.5 ton/acre. When the photoperiod sensitive hybrids were also BMR, yields averaged 3.2 ton/acre less in the forage sorghum hybrids and 5.8 ton/acre less in the sorghum/sudangrass hybrids.

Average lodging scores of both BMR and nonBMR forage sorghum hybrids was relatively low (5.9 and 3.4%, respectively). The lodging scores recorded were taken on the day that the sorghum was harvested for silage. It was observed that these lodging scores would have greatly increased in many of the hybrids if ratings would have been taken as little as a week later, indicating the importance of harvesting forage sorghum at the correct moisture stage (65 to 68%). In the past we have observed very little lodging of photoperiod sensitive hybrids. However, in 2006 the two forages sorghum BMR photoperiod sensitive hybrids, as well as the single forage sorghum nonBMR photoperiod sensitive entry, were all observed to have some lodging.

Average grain yield of the nonBMR forage sorghums was approximately 54% of the traditional grains sorghum hybrids. BMR forage sorghums averaged only 33% of the grain yield of the traditional grain sorghum hybrids. However, as in previous years there was a wide range in grain yield of both nonBMR and BMR forage sorghums (Table 3).

Table 1. Summary of key characteristics by sorghum type and corn.

Sorghum Type ¹⁾	% Lodging @ Harvest	% Moist. @ Harvest	Tons/Ac @ 65% Moist.	Grain Yield, lb/Ac	% Crude Protein	% ADF	% NDF	% Lignin	% IVTD	% NDFD	Milk lbs/ton DM	Relative Forage Quality (RFQ)
F. Sorghum NonBMR (30)	5.9	69.8	21.7	4,069	6.0	30.6	48.6	4.25	78.5	55.8	2,674	120
F. Sorghum BMR (25)	3.4	68.7	20.5	2,434	6.8	28.9	46.7	3.47	82.8	63.2	2,897	139
F. Sorghum NonBMR, PS (1)	8.3	75.1	27.6	0.0	6.0	39.4	62.9	5.73	71.7	55.0	2102	94
F. Sorghum BMR, PS (2)	13.3	75.4	24.4	0	4.6	37.2	61.5	4.39	75.6	60.3	2,334	96
Sorg/Sudan NonBMR (10)	2.7	68.5	19.5	314	6.2	33.5	53.3	4.83	75.4	53.8	2,458	110
Sorg/Sudan BMR (8)	5.1	69.9	19.3	462	6.7	31.8	51.1	4.23	78.6	58.1	2,595	118
Sorg/Sudan NonBMR, PS (6)	1.9	71.6	27.4	0	4.6	39.3	61.7	5.57	69.9	51.2	2,014	82
Sorg/Sudan BMR, PS (3)	3.9	71.6	21.6	0	5.9	35.7	57.5	4.46	75.9	58.1	2,342	102
Grain Sorghum (3)	0.0	62.1	20.4	7,441	7.6	25.2	40.3	3.81	82.1	55.6	3,058	173
Test Avg.	4.5	69	21.4	2377	6.20	31.4	50.2	4.19	78.7	57.6	2,651	122
Corn												
NC+7117	0.0	64.6	21.2		8.7	23.2	39.4	3.07	85.0	61.9		
NC+7373RB	0.0	67.5	24.5		8.7	22.2	38.1	3.43	85.0	60.6		

¹⁾ Number in parenthesis is the number of hybrids that make up each sorghum type. BMR = Brown midrib, PS = Photoperiod sensitive. Any sudangrass hybrids were averaged with the sorghum/sudangrass entries.

Comparison to Corn

Two corn hybrids, NC+ 7117 and NC+ 7373RB, were planted adjacent to the sorghum trial. NC+ 7117 represents older corn hybrids and has been compared to forage sorghum hybrids in our previous trials. NC+ 7373RB is a new hybrid and this is the first year it has been planted for comparison to forage sorghum entries in this trial. As in 2004 and 2005, NC+ 7117 yield was similar to the average of BMR forage sorghum hybrids (Table 2). However, NC+ 7373RB yielded approximately 3 tons/acre more, suggesting that it may be more productive under limited irrigation than NC+ 7117. It is becoming apparent, after three years of similar results, that corn can be as productive as BMR forage sorghum. The key in achieving satisfactory yield and quality of corn silage will likely be to not let the corn stress during tasseling and early grain fill. In earlier trials, when corn was fully irrigated based on soil moisture monitoring with gypsum blocks, yield did not increase significantly over the nonBMR forage sorghum yield.

Table 2. Three year comparison of corn to forage sorghum when each crop was irrigated the same.

	Ton/Acre @ 65% Moisture			% IVTD		
	2004	2005	2006	2004	2005	2006
F. Sorghum NonBMR	22.3	20.9	21.7	76.7	74.9	78.5
F. Sorghum BMR	19.3	18.5	20.5	79.1	80.6	82.8
Corn (NC+7117)	19.2	18.0	22.8	77.7	84.0	85.0

As seen in previous tests, on average, the %IVTD was higher for the types of sorghum containing the BMR mutation compared to the similar types without the BMR trait (Tables 1 and 3). IVTD for the nonBMR forage sorghums ranged from 74.7 to 82.7% while the IVTD of the BMR forage sorghums ranged from 78.3 to 85.3%. In the sorghum-sudangrass, IVTD of the nonBMR hybrids ranged from 73 to 80.3% while the BMR hybrids ranged from 74.7 to 91.7%. As noted in previous tests, the PS hybrids had the lower IVTD values. Combining the BMR trait with PS improved the IVTD of the PS hybrids; however the IVTD of the PS-BMR hybrids were lower than the IVTD of non-PS hybrids. Both corn hybrids in the test had IVTDs of 85%. Eighteen BMR forage sorghums had IVTD greater than 82.5%.

Because of the range of digestibilities within the BMR and nonBMR entries, there was overlap among the types. This again indicates that the presence or absence of the BMR trait is not a guarantee of superior or inferior digestibility. This judgment must be made based on data for the individual variety. The higher IVTD of the BMR hybrids is related to the lower lignin concentrations in these hybrids.

The corn hybrids averaged 38.7% NDF with average NDFD of 61.3%. The non-BMR forage sorghums averaged 48.6% NDF and 55.8% NDFD, while the BMR forage sorghums averaged 46.7% NDF and 63.2% NDFD. The difference in NDFD reflects the influence of lignin on fiber digestibility.

Table 3. 2006 Comparison of sorghum hybrids for agronomic characteristics, yield and nutrient composition.

Variety Information ¹⁾						Agronomic Information ²⁾												
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	Stand Count, Plts/Ac	Harv. Date	% Lodging	Height, ft	% Moist.	Ton/Ac @ 65% Moist.	Grain Yield, lb/Ac						
Mega Green	Walter Moss Seed Co.	Sorghum/Sudan	PS	N	N	121,161	a-d	6-Oct	3.3	hi	11.2	a-d	72	abc	29.2	a	0	D
Mega Green BMR	Walter Moss Seed Co.	Sorghum/Sudan	PS	Y	N	37,171	HIJ	6-Oct	11.7	e-i	11.7	ab	73	ab	19.7	i-r	0	D
811F	Pioneer Hi-Bred Int.	F. Sorghum	ML	N	PS	82,474	I-B	6-Oct	8.3	f-i	11.0	a-e	75	a	27.6	a-d	0	D
Pacesetter BMR	Richardson Seeds	F. Sorghum	PS	Y	N	46,464	F-J	6-Oct	13.3	e-i	11.2	a-d	75	a	23.9	a-l	0	D
BMR Gold III	Scott Seed Co.	Sorghum/Sudan	PS	Y	N	61,565	y-H	6-Oct	0.0	i	10.7	b-f	70	abc	22.9	b-o	0	D
Premium Stock LS	Scott Seed Co.	Sorghum/Sudan	PS	N	N	77,827	o-E	6-Oct	0.0	i	11.0	a-e	71	abc	27.3	a-e	0	D
Sordan Headless	Sorghum Partners	Sorghum/Sudan	PS	N	N	91,186	h-w	6-Oct	3.3	hi	11.7	ab	72	abc	25.4	a-i	0	D
Trudan Headless	Sorghum Partners	Sudangrass	PS	N	N	99,317	c-r	6-Oct	0.0	i	10.7	b-f	68	abc	27.7	a-d	0	D
Trudan Headless BMR	Sorghum Partners	Sudangrass	PS	Y	N	76,666	p-E	6-Oct	0.0	i	10.0	d-g	71	abc	22.3	b-p	0	D
Sucrosse 9-R PS	Warner Seeds	Sorghum/Sudan	PS	N	N	121,387	a-d	6-Oct	1.7	hi	11.2	a-d	73	ab	26.5	a-g	0	D
Nutrigreen BMR	Warner Seeds	F. Sorghum	PS	Y	N	73,761	r-E	6-Oct	13.3	e-i	11.0	a-e	75	a	24.9	a-k	0	D
Sugargraze Ultra	Coffey Forage Seeds	Sorghum/Sudan	PS	N	N	80,151	m-D	6-Oct	3.3	hi	12.0	a	73	ab	28.0	abc	0	D
GW 7828 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	Y	69,115	t-G	14-Sep	0.0	i	7.8	j-q	66	abc	23.3	a-n	3,741	i-s
GW 8528 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	N	56,338	B-H	11-Sep	0.0	i	7.7	k-r	71	abc	17.3	n-r	4,288	f-m
GW X7181 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	101,640	c-q	14-Sep	3.3	hi	9.0	g-j	69	abc	21.0	f-r	456	y-D
GW X7191 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	112,675	a-j	11-Sep	6.7	f-i	7.7	k-r	69	abc	17.9	l-r	270	A-D
Silmaker 6000	Frontier Hybrids	F. Sorghum	M	N	N	66,792	v-G	14-Sep	0.0	i	6.8	p-u	68	abc	19.2	i-r	6,450	a-e
Silmaker 6500	Frontier Hybrids	F. Sorghum	M	N	N	114,417	a-i	14-Sep	0.0	i	6.2	tu	73	abc	21.9	b-q	5,549	d-j
Silmaker 7000	Frontier Hybrids	F. Sorghum	M	N	N	74,923	r-E	22-Sep	0.0	i	6.5	r-u	69	abc	20.0	h-r	7,922	ab
23402	Garrison & Townsend	F. Sorghum	ML	Y	Y	112,094	a-j	22-Sep	1.7	hi	7.5	l-s	69	abc	21.7	d-q	1,741	r-D
24213	Garrison & Townsend	F. Sorghum	M	Y	N	128,938	ab	22-Sep	23.3	b-e	7.5	l-s	68	abc	22.0	b-q	2,114	n-D
23419	Garrison & Townsend	F. Sorghum	M	Y	N	99,897	c-r	14-Sep	3.3	hi	8.0	j-p	68	abc	19.9	h-r	1,388	t-D
991005	Garrison & Townsend	F. Sorghum	ME	Y	N	89,443	h-x	14-Sep	0.0	i	7.3	m-t	70	abc	21.8	b-q	2,490	m-z
991021	Garrison & Townsend	F. Sorghum	ME	Y	N	125,226	abc	22-Sep	6.7	f-i	6.8	p-u	68	abc	20.2	h-r	1,970	p-D
27681	Garrison & Townsend	F. Sorghum	ML	Y	N	111,514	a-k	22-Sep	1.7	hi	7.3	m-t	70	abc	19.6	i-r	1,871	p-D
Garst 325	Garst Seed Company	F. Sorghum	ML	N	N	73,761	r-E	6-Oct	0.0	i	4.7	v	44	d	15.1	r	6,744	a-e
Exp 2211X	Garst Seed Company	F. Sorghum	ME	N	N	88,863	i-x	14-Sep	0.0	i	6.5	r-u	72	abc	20.0	h-r	5,425	d-k
Exp N318X	Garst Seed Company	F. Sorghum	M	N	N	87,120	j-z	11-Sep	0.0	i	8.3	j-n	70	abc	23.6	a-n	4,191	g-n
DeKalb FS5	Monsanto	F. Sorghum	M	N	N	118,483	a-f	14-Sep	0.0	i	8.2	j-o	71	abc	22.6	b-p	1,805	q-D
DeKalb DKS 59-09	Monsanto	F. Sorghum	M	N	N	99,317	c-r	11-Sep	0.0	i	6.0	u	73	abc	20.0	h-r	6,252	a-f
DeKalb SX17	Monsanto	Sorghum/Sudan	M	N	Y	80,150	m-D	28-Sep	6.7	f-i	10.8	a-f	70	abc	20.0	h-r	365	z-D
DeKalb St6	Monsanto	Sorghum/Sudan	M	N	Y	101,640	c-q	14-Sep	1.7	hi	10.2	c-f	69	abc	18.1	l-r	130	CD
Millennium BMR	Walter Moss Seed Co.	F. Sorghum	L	Y	N	46,464	F-J	28-Sep	0.0	i	8.5	j-m	69	abc	20.2	g-r	1,379	t-D
SU-2-LM	Walter Moss Seed Co.	Sorghum/Sudan	L	N	N	78,408	o-E	28-Sep	1.7	hi	10.5	b-f	70	abc	22.1	b-p	348	z-D
38 Special	Walter Moss Seed Co.	Sorghum/Sudan	L	Y	N	55,757	C-H	6-Oct	0.0	i	11.2	a-d	68	abc	25.0	a-j	528	y-D

Variety Information ¹⁾						Agronomic Information ²⁾												
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	Stand Count, Plts/Ac	Harv. Date	% Lodging	Height, ft	% Moist.	Ton/Ac @ 65% Moist.	Grain Yield, lb/Ac						
NC+ Nutri-Choice II	NC+ Hybrids	F. Sorghum	ML	N	N	103,963	b-o	28-Sep	0.0	i	6.5	r-u	67	abc	19.6	i-r	6,153	a-g
NC+ Nutri-Cane II	NC+ Hybrids	F. Sorghum	M	N	N	119,999	a-e	14-Sep	0.0	i	7.7	k-r	72	abc	22.0	b-q	1,873	p-D
NC+ X825528F X	NC+ Hybrids	F. Sorghum	ML	Y	N	105,705	b-m	14-Sep	0.0	i	7.2	n-u	69	abc	20.5	g-r	1,173	v-D
NC+ X718228F X	NC+ Hybrids	F. Sorghum	ML	Y	N	74,923	r-E	14-Sep	0.0	i	7.7	k-r	70	abc	21.8	c-q	3,714	j-s
979	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	Y	106,286	b-m	14-Sep	0.0	i	7.8	j-q	70	abc	19.3	i-r	218	BCD
877F	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	N	115,353	a-h	14-Sep	1.7	hi	8.5	j-m	67	abc	21.6	d-q	527	y-D
PU 8167 X	Purdue Univ.	F. Sorghum	L	N	N	58,080	B-H	6-Oct	0.0	i	7.7	k-r	71	abc	22.7	b-p	4,813	e-l
PU 8168X	Purdue Univ.	F. Sorghum	L	N	N	74,342	r-E	6-Oct	11.7	e-i	8.5	j-m	70	abc	27.1	a-f	4,153	g-o
PU 8204X	Purdue Univ.	F. Sorghum	L	Y	N	60,984	z-H	6-Oct	0.0	i	7.0	o-u	68	abc	19.5	i-r	3,457	k-t
PU 8206X	Purdue Univ.	F. Sorghum	L	Y	N	60,403	A-H	6-Oct	0.0	i	6.8	p-u	46	d	15.2	r	3,401	k-t
PU 8165X	Purdue Univ.	F. Sorghum	L	Y	N	69,115	t-G	6-Oct	0.0	i	6.0	u	67	abc	22.6	b-p	6,040	b-g
Silo 700D	Richardson Seeds	F. Sorghum	ML	N	N	81,312	m-C	22-Sep	0.0	i	6.7	q-u	67	abc	23.2	a-n	7,051	a-d
Bundle King BMR	Richardson Seeds	F. Sorghum	L	Y	Y	63,888	x-G	6-Oct	7.5	f-i	10.2	c-f	72	abc	22.2	b-p	1,170	v-D
Dairy Master BMR	Richardson Seeds	F. Sorghum	ML	Y	N	52,853	E-I	14-Sep	0.0	i	8.8	h-k	72	abc	20.2	h-r	728	w-D
Sweeter 'N Honey BMR	Richardson Seeds	F. Sorghum	M	Y	N	27,879	J	22-Sep	1.7	hi	7.8	j-q	70	abc	19.8	h-r	2,263	m-C
BMR Gold I	Scott Seed Co.	F. Sorghum	M	Y	N	110,933	a-k	14-Sep	31.7	b	8.7	i-l	74	ab	17.9	l-r	1,062	v-D
S.S. Silage	Scott Seed Co.	F. Sorghum	M	N	N	104,898	b-n	28-Sep	15.0	d-h	10.2	c-f	70	abc	23.7	a-m	1,245	u-D
BMR Gold	Scott Seed Co.	F. Sorghum	ML	Y	N	82,473	l-B	6-Oct	0.0	i	6.3	stu	67	abc	23.0	a-o	3,848	i-r
BMR Gold II	Scott Seed Co.	Sorghum/Sudan	M	Y	N	106,286	b-m	14-Sep	5.0	ghi	8.0	j-p	73	ab	18.6	k-r	644	x-D
Canex BMR 208	Sharp Bros. Seed	F. Sorghum	ME	Y	N	78,989	n-E	11-Sep	0.0	i	7.7	k-r	68	abc	22.1	b-q	2,532	m-y
Canex	Sharp Bros. Seed	F. Sorghum	ME	N	Y	85,378	k-A	31-Aug	0.0	i	7.4	m-s	72	abc	20.7	g-r	1,876	p-D
Canex II	Sharp Bros. Seed	F. Sorghum	M	N	Y	82,474	l-B	14-Sep	0.0	i	8.2	j-o	70	abc	22.4	b-p	3,950	h-p
Silex BMR 502	Sharp Bros. Seed	F. Sorghum	ML	Y	Y	70,858	s-F	14-Sep	0.0	i	7.5	l-s	70	abc	19.3	i-r	2,809	l-w
Grazex BMR 718	Sharp Bros. Seed	Sorghum/Sudan	M	Y	N	89,443	h-x	22-Sep	4.3	ghi	9.7	f-i	69	abc	18.9	j-r	297	A-D
Grazex II	Sharp Bros. Seed	Sorghum/Sudan	M	N	Y	123,711	abc	31-Aug	0.0	i	8.8	h-k	64	abc	19.5	i-r	170	BCD
BMR 106	Seed Resource	F. Sorghum	M	Y	N	94,670	e-t	11-Sep	0.0	i	7.5	l-s	71	abc	19.0	i-r	2,922	l-v
FS 515 HQ	Seed Resource	F. Sorghum	ML	N	N	134,745	a	14-Sep	0.0	i	6.7	q-u	74	ab	20.2	g-r	5,886	c-h
FS 555	Seed Resource	F. Sorghum	L	N	N	108,029	b-l	28-Sep	58.3	a	9.8	e-h	73	ab	23.1	a-n	788	v-D
NK 300	Sorghum Partners	F. Sorghum	M	N	N	103,963	b-o	14-Sep	0.0	i	6.3	stu	72	abc	19.8	h-r	5,750	d-i
HiKane II	Sorghum Partners	F. Sorghum	E	N	N	105,705	b-m	11-Sep	0.0	i	7.8	j-q	72	abc	19.6	i-r	2,078	o-D
SS 405	Sorghum Partners	Sorghum/Sudan	L	N	N	117,902	a-g	28-Sep	1.7	hi	11.5	ab	69	abc	24.0	a-l	541	y-D
Sordan 79	Sorghum Partners	Sorghum/Sudan	M	N	N	102,801	b-p	14-Sep	10.0	f-i	10.0	d-g	70	abc	18.6	k-r	269	A-D
Trudan 8	Sorghum Partners	Sudangrass	M	N	N	96,413	d-s	31-Aug	3.3	hi	8.4	j-m	67	abc	15.7	qr	219	BCD
SuperSile 30	Triumph Seed Co.	F. Sorghum		N	N	103,382	b-o	28-Sep	13.3	e-i	8.2	j-o	70	abc	23.2	a-n	3,872	i-q
Sucrosse 6-R BMR	Warner Seeds, Inc.	F. Sorghum	M	Y	N	59,241	A-H	11-Sep	0.0	i	7.8	j-q	71	abc	19.0	j-r	1,107	v-D
Red Top Kandy	Warner Seeds, Inc.	F. Sorghum	L	N	N	106,286	b-m	28-Sep	28.3	bc	10.5	b-f	73	ab	23.6	a-n	170	BCD
Moo Chow W	Warner Seeds, Inc.	F. Sorghum	ML	N	N	91,766	g-w	22-Sep	16.7	c-g	10.5	b-f	72	abc	21.1	e-r	1,038	v-D
2-Way	Warner Seeds, Inc.	F. Sorghum	ML	N	N	111,287	a-k	28-Sep	26.7	bcd	9.8	e-h	70	abc	23.5	a-n	1,643	s-D

Variety Information ¹⁾						Agronomic Information ²⁾												
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	Stand Count, Plts/Ac	Harv. Date	% Lodging	Height, ft	% Moist.	Ton/Ac @ 65% Moist.	Grain Yield, lb/Ac						
2-Way SRS	Warner Seeds, Inc.	F. Sorghum	ML	N	N	92,928	f-v	28-Sep	5.0	ghi	9.7	f-i	71	abc	26.1	a-h	2,384	m-A
2-Way F-104	Warner Seeds, Inc.	F. Sorghum	L	N	N	76,085	q-E	22-Sep	0.0	i	6.5	r-u	67	abc	19.6	i-r	6,987	a-d
WXF-03451	Warner Seeds, Inc.	Sorghum/Sudan	M	Y	N	106,286	b-m	11-Sep	0.0	i	8.3	j-n	68	abc	19.1	i-r	570	y-D
Sweet Bee	Warner Seeds, Inc.	F. Sorghum	ME	N	N	30,202	IJ	11-Sep	1.7	hi	8.3	j-n	70	abc	20.6	g-r	2,567	m-y
Sweet Bee Sterile II	Warner Seeds, Inc.	F. Sorghum	ME	N	Y	109,771	a-k	22-Sep	0.0	i	7.7	k-r	70	abc	21.9	b-q	3,299	l-u
Check 1(A571)	Tx. Agri. Exp. Stat.	Grain Sorghum	M	N	N	110,352	a-k	22-Sep	0.0	i	4.5	v	60	c	20.9	f-r	6,877	a-d
Check 2 (NC+8R18)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	118,483	a-f	22-Sep	0.0	i	4.8	v	64	abc	19.7	i-r	8,078	a
Check 3 (84G62)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	120,226	a-e	22-Sep	0.0	i	3.8	v	62	bc	20.7	g-r	7,367	a-d
Rio	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	66,792	v-G	6-Oct	1.7	hi	11.3	abc	67	abc	28.1	ab	1,224	u-D
Keller	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	74,342	r-E	14-Sep	0.0	i	9.0	g-j	68	abc	19.7	i-r	1,528	t-D
Della	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	65,631	w-G	22-Sep	18.3	c-f	10.5	b-f	75	ab	20.0	h-r	1,439	t-D
DeKalb FS 25E	Monsanto	F. Sorghum	L	N	N	87,701	j-y	9-Jul	0.0	i	8.7	i-l	72	abc	24.1	a-l	2,312	m-B
Red Top Plus	Production Plus	F. Sorghum	ML	Y	N	44,141	G-J	22-Sep	5.0	ghi	7.8	j-q	72	abc	19.2	i-r	2,728	m-x
Silex BMR 501	Sharp Bros. Seed	F. Sorghum	M	Y	N	58,080	B-H	6-Oct	1.7	hi	11.0	a-e	70	abc	24.9	a-k	915	v-D
Garst 320	Garst Seed Company	F. Sorghum	M	N	N	67,953	u-G	11-Sep	0.0	i	6.0	u	68	abc	20.9	f-r	7,843	abc
Dry Stalk	Production Plus	Sorghum/Sudan	M	Y	N	93,509	f-u	11-Sep	15.0	d-h	6.8	p-u	71	abc	16.7	o-r	154	BCD
Special Effect	Production Plus	Sorghum/Sudan	ML	N	M	54,595	D-H	31-Aug	0.0	i	7.8	j-q	69	abc	16.5	pqr	353	z-D
Nutri+Plus BMR	Production Plus	Sorghum/Sudan	ML	Y	N	59,822	A-H	31-Aug	6.7	f-i	7.8	j-q	73	abc	17.4	m-r	778	w-D
Test Average						87,316			4.5		8.4		69		21.4		2377	
LSD (P=.05)						20,849.67			10.502		0.978		9.948		4.957		1690.586	
Standard Deviation						12,896.73			6.496		0.605		6.154		3.066		1045.725	
CV						14.77			145.31		7.18		8.86		14.32		44	

¹⁾ Variety information provided by seed companies. Male sterile entries were cross pollinated by other varieties.

²⁾ Means followed by the same letter do not significantly differ at (P=0.05).

Table 3. 2006 Comparison of sorghum hybrids for agronomic characteristics, yield and nutrient composition.

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	% Crude Protein	% ADF	% NDF	% Lignin	% TDN	NEL, Mcal/lb		NEM, Mcal/lb						
MegA Green	Walter Moss Seed Co.	Sorghum/Sudan	PS	N	N	5.33	e-r	40.7	a	62.7	ab	5.73	ab	54	vw	0.47	AB	0.46	vw
Mega Green BMR	Walter Moss Seed Co.	Sorghum/Sudan	PS	Y	N	5.23	f-r	34.1	e-s	56.5	a-k	4.07	j-w	63	h-r	0.58	r-y	0.59	i-r
811F	Pioneer Hi-Bred Int.	F. Sorghum	ML	N	PS	6.03	a-q	39.4	abc	62.9	a	5.73	ab	57	s-w	0.50	zAB	0.50	r-w
Pacesetter BMR	Richardson Seeds	F. Sorghum	PS	Y	N	4.73	m-r	37.4	a-h	61.1	a-e	4.57	e-n	60	p-u	0.53	x-B	0.55	n-u
BMR Gold III	Scott Seed Co.	Sorghum/Sudan	PS	Y	N	5.20	g-r	36.0	a-l	57.8	a-j	4.73	c-k	60	q-u	0.55	v-A	0.54	p-v
Premium Stock LS	Scott Seed Co.	Sorghum/Sudan	PS	N	N	3.93	qr	39.1	a-d	61.9	a-d	5.33	a-e	56	t-w	0.49	zAB	0.47	t-w
Sordan Headless	Sorghum Partners	Sorghum/Sudan	PS	N	N	4.93	i-r	38.5	a-f	61.1	a-f	5.43	abc	55	uvw	0.49	zAB	0.47	uvw
Trudan Headless	Sorghum Partners	Sudangrass	PS	N	N	4.63	n-r	39.0	a-e	61.2	a-e	5.67	ab	55	uvw	0.49	zAB	0.47	uvw
Trudan Headless BMR	Sorghum Partners	Sudangrass	PS	Y	N	7.13	a-j	36.9	a-j	58.2	a-i	4.57	e-n	60	o-t	0.55	u-z	0.55	m-t
Sucrosse 9-R PS	Warner Seeds	Sorghum/Sudan	PS	N	N	4.00	pqr	40.0	ab	62.5	abc	5.87	a	54	w	0.47	B	0.44	w
Nutrigreen BMR	Warner Seeds	F. Sorghum	PS	Y	N	4.45	o-r	36.9	a-i	61.9	a-d	4.20	i-u	61	m-s	0.54	w-B	0.56	l-s
Sugargraze Ultra	Coffey Forage Seeds	Sorghum/Sudan	PS	N	N	4.67	n-r	38.6	a-f	60.6	a-g	5.40	a-d	56	t-w	0.49	zAB	0.48	s-w
GW 7828 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	Y	6.73	a-o	27.0	A-F	45.2	u-E	3.37	t-A	70	a-d	0.71	a-e	0.72	a-e
GW 8528 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	N	7.60	a-e	25.2	DEF	42.0	C-F	3.17	x-A	72	ab	0.74	ab	0.75	a
GW X7181 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	7.33	a-h	31.3	l-C	51.5	i-w	4.40	f-q	64	f-r	0.63	g-v	0.62	f-q
GW X7191 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	7.00	a-m	31.0	l-C	50.2	k-A	4.23	h-t	65	e-q	0.63	e-u	0.63	d-o
Silmaker 6000	Frontier Hybrids	F. Sorghum	M	N	N	7.50	a-f	26.8	A-F	44.2	x-F	4.07	j-w	66	c-m	0.68	a-n	0.67	a-j
Silmaker 6500	Frontier Hybrids	F. Sorghum	M	N	N	6.90	a-n	28.8	u-D	47.2	p-D	4.27	g-s	64	f-q	0.64	d-s	0.63	d-o
Silmaker 7000	Frontier Hybrids	F. Sorghum	M	N	N	6.37	a-o	28.8	u-D	45.9	s-E	4.43	f-q	67	a-j	0.68	a-n	0.67	a-j
23402	Garrison & Townsend	F. Sorghum	ML	Y	Y	8.13	a	29.4	o-D	46.1	s-E	3.00	A	68	a-i	0.68	a-l	0.68	a-h
24213	Garrison & Townsend	F. Sorghum	M	Y	N	6.70	a-o	29.2	q-D	47.2	p-D	3.63	p-A	66	c-n	0.66	c-r	0.65	b-l
23419	Garrison & Townsend	F. Sorghum	M	Y	N	7.50	a-f	28.8	u-D	46.4	r-D	3.33	u-A	67	a-k	0.67	a-o	0.67	a-j
991005	Garrison & Townsend	F. Sorghum	ME	Y	N	7.27	a-h	28.9	u-D	45.0	v-E	3.70	n-A	67	b-l	0.68	a-n	0.67	a-j
991021	Garrison & Townsend	F. Sorghum	ME	Y	N	8.00	ab	28.2	w-E	45.6	t-E	3.23	w-A	69	a-f	0.69	a-i	0.69	a-g
27681	Garrison & Townsend	F. Sorghum	ML	Y	N	7.33	a-h	29.9	o-D	46.4	r-D	3.83	l-A	69	a-f	0.69	a-j	0.69	a-g
Garst 325	Garst Seed Company	F. Sorghum	ML	N	N	7.20	a-i	32.2	i-z	50.6	k-A	4.55	e-n	64	f-r	0.63	g-v	0.62	f-q
Exp 2211X	Garst Seed Company	F. Sorghum	ME	N	N	5.47	e-r	28.8	u-D	45.9	s-E	4.00	k-x	65	d-p	0.66	b-q	0.65	b-l
Exp N318X	Garst Seed Company	F. Sorghum	M	N	N	6.30	a-o	30.9	m-C	49.6	k-B	4.40	f-q	64	f-r	0.63	g-v	0.62	f-q
DeKalb FS5	Monsanto	F. Sorghum	M	N	N	6.10	a-q	29.3	p-D	46.0	s-E	4.07	j-w	66	c-n	0.67	a-p	0.66	a-k
DeKalb DKS 59-09	Monsanto	F. Sorghum	M	N	N	6.73	a-o	29.0	s-D	42.6	B-F	3.90	k-z	66	c-m	0.68	a-l	0.67	a-j
DeKalb SX17	Monsanto	Sorghum/Sudan	M	N	Y	5.23	f-r	36.5	a-k	56.7	a-k	5.07	a-h	61	n-t	0.56	s-z	0.56	l-r
DeKalb St6	Monsanto	Sorghum/Sudan	M	N	Y	5.43	e-r	37.0	a-i	58.2	a-i	5.63	ab	59	r-w	0.54	w-B	0.53	q-v
Millennium BMR	Walter Moss Seed Co.	F. Sorghum	L	Y	N	5.47	e-r	27.1	z-F	43.7	z-F	3.20	w-A	69	a-f	0.70	a-g	0.70	a-f
SU-2-LM	Walter Moss Seed Co.	Sorghum/Sudan	L	N	N	5.77	b-r	35.3	b-m	55.5	c-l	4.97	b-i	59	q-v	0.56	u-z	0.54	o-v
38 Special	Walter Moss Seed Co.	Sorghum/Sudan	L	Y	N	5.67	c-r	33.1	h-w	52.8	i-t	4.47	f-p	62	j-s	0.59	o-x	0.58	j-r

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	% Crude Protein		% ADF		% NDF		% Lignin		% TDN		NEL, Mcal/lb		NEM, Mcal/lb	
NC+ Nutri-Choice II	NC+ Hybrids	F. Sorghum	ML	N	N	6.03	a-q	29.1	s-D	47.2	p-D	4.50	e-p	64	f-q	0.64	d-s	0.63	e-p
NC+ Nutri-Cane II	NC+ Hybrids	F. Sorghum	M	N	N	5.67	c-r	29.8	o-D	47.1	q-D	3.67	o-A	67	a-k	0.67	a-o	0.67	a-j
NC+ X825528F X	NC+ Hybrids	F. Sorghum	ML	Y	N	6.70	a-o	28.6	v-D	46.3	r-D	3.37	t-A	69	a-f	0.69	a-i	0.69	a-g
NC+ X718228F X	NC+ Hybrids	F. Sorghum	ML	Y	N	6.73	a-o	26.8	B-F	44.8	v-E	3.40	s-A	71	a-d	0.71	a-e	0.72	a-d
979	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	Y	6.57	a-o	33.3	h-w	52.4	i-u	4.53	e-o	62	i-s	0.61	k-x	0.59	h-q
877F	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	N	6.83	a-n	30.5	m-C	49.2	l-C	4.40	f-q	64	f-r	0.63	f-u	0.62	f-q
PU 8167 X	Purdue Univ.	F. Sorghum	L	N	N	5.93	a-q	33.4	g-v	54.5	e-p	4.13	i-v	63	g-r	0.60	m-x	0.60	g-q
PU 8168X	Purdue Univ.	F. Sorghum	L	N	N	4.83	k-r	34.0	f-t	53.6	g-r	4.33	g-r	62	k-s	0.59	p-y	0.57	k-r
PU 8204X	Purdue Univ.	F. Sorghum	L	Y	N	6.65	a-o	29.6	o-D	47.5	o-D	3.30	v-A	69	a-g	0.69	a-k	0.69	a-g
PU 8206X	Purdue Univ.	F. Sorghum	L	Y	N	6.27	a-p	30.7	m-C	49.0	l-C	3.33	u-A	68	a-h	0.67	a-p	0.68	a-i
PU 8165X	Purdue Univ.	F. Sorghum	L	Y	N	6.63	a-o	28.9	t-D	47.1	q-D	3.33	u-A	68	a-h	0.68	a-n	0.68	a-h
Silo 700D	Richardson Seeds	F. Sorghum	ML	N	N	6.33	a-o	27.2	z-F	43.8	y-F	4.03	k-w	67	a-k	0.68	a-l	0.67	a-j
Bundle King BMR	Richardson Seeds	F. Sorghum	L	Y	Y	6.00	a-q	34.2	e-r	54.3	e-q	4.05	k-w	66	d-o	0.62	h-w	0.63	c-n
Dairy Master BMR	Richardson Seeds	F. Sorghum	ML	Y	N	4.70	n-r	31.2	l-C	50.6	k-A	3.67	o-A	66	c-n	0.64	d-t	0.64	c-m
Sweeter 'N Honey BMR	Richardson Seeds	F. Sorghum	M	Y	N	7.93	abc	27.2	z-F	44.8	v-E	3.80	m-A	70	a-e	0.71	a-f	0.72	a-e
BMR Gold I	Scott Seed Co.	F. Sorghum	M	Y	N	6.90	a-n	32.5	h-y	51.1	i-y	4.07	j-w	63	g-r	0.61	i-w	0.60	g-q
S.S. Silage	Scott Seed Co.	F. Sorghum	M	N	N	4.67	n-r	34.1	e-s	54.1	f-q	4.60	d-m	62	k-s	0.58	q-y	0.57	k-r
BMR Gold	Scott Seed Co.	F. Sorghum	ML	Y	N	6.77	a-n	29.4	o-D	47.7	o-D	3.07	zA	68	a-i	0.67	a-o	0.68	a-h
BMR Gold II	Scott Seed Co.	Sorghum/Sudan	M	Y	N	7.17	a-j	30.3	m-C	48.2	m-D	3.77	m-A	67	b-l	0.66	b-q	0.66	a-k
Canex BMR 208	Sharp Bros. Seed	F. Sorghum	ME	Y	N	7.43	a-g	25.0	DEF	41.4	DEF	3.20	w-A	71	abc	0.73	abc	0.74	ab
Canex	Sharp Bros. Seed	F. Sorghum	ME	N	Y	5.70	c-r	28.0	x-E	44.5	w-F	3.73	m-A	68	a-g	0.70	a-h	0.69	a-g
Canex II	Sharp Bros. Seed	F. Sorghum	M	N	Y	5.70	c-r	27.8	y-E	44.3	w-F	3.77	m-A	68	a-i	0.69	a-k	0.68	a-i
Silex BMR 502	Sharp Bros. Seed	F. Sorghum	ML	Y	Y	7.30	a-h	26.6	B-F	43.3	A-F	3.23	w-A	72	a	0.74	ab	0.75	a
Grazex BMR 718	Sharp Bros. Seed	Sorghum/Sudan	M	Y	N	5.33	e-r	34.4	d-o	55.9	b-l	4.70	c-l	60	o-t	0.56	s-z	0.55	m-t
Grazex II	Sharp Bros. Seed	Sorghum/Sudan	M	N	Y	7.10	a-k	31.6	k-B	50.5	k-A	5.10	a-g	61	l-s	0.60	l-x	0.58	j-r
BMR 106	Seed Resource	F. Sorghum	M	Y	N	6.27	a-p	29.0	t-D	47.3	p-D	3.73	m-A	68	a-h	0.67	a-o	0.68	a-i
FS 515 HQ	Seed Resource	F. Sorghum	ML	N	N	5.10	h-r	33.0	h-x	53.2	h-s	4.93	b-j	60	o-t	0.58	r-y	0.56	l-s
FS 555	Seed Resource	F. Sorghum	L	N	N	5.60	d-r	32.9	h-x	52.0	i-v	4.43	f-q	61	n-t	0.58	q-y	0.56	l-s
NK 300	Sorghum Partners	F. Sorghum	M	N	N	6.73	a-o	29.3	p-D	47.9	n-D	4.53	e-o	64	f-q	0.64	d-s	0.63	d-o
HiKane II	Sorghum Partners	F. Sorghum	E	N	N	5.93	a-q	30.0	n-D	47.4	o-D	4.23	h-t	66	c-n	0.66	b-q	0.65	b-l
SS 405	Sorghum Partners	Sorghum/Sudan	L	N	N	4.63	n-r	38.2	a-g	60.0	a-h	5.23	a-f	57	s-w	0.51	y-B	0.50	r-w
Sordan 79	Sorghum Partners	Sorghum/Sudan	M	N	N	5.63	d-r	31.6	k-B	50.7	j-z	4.47	f-p	62	i-s	0.61	j-x	0.59	h-q
Trudan 8	Sorghum Partners	Sudangrass	M	N	N	6.63	a-o	34.3	d-p	55.0	d-n	4.97	b-i	59	r-w	0.56	t-z	0.54	p-v
SuperSile 30	Triumph Seed Co.	F. Sorghum		N	N	5.33	e-r	32.7	h-y	51.2	i-x	4.40	f-q	62	i-s	0.60	l-x	0.59	i-r
Sucrosse 6-R BMR	Warner Seeds, Inc.	F. Sorghum	M	Y	N	7.27	a-h	27.4	z-F	44.5	w-F	3.50	r-A	70	a-e	0.72	a-d	0.72	a-e
Red Top Kandy	Warner Seeds, Inc.	F. Sorghum	L	N	N	4.90	j-r	34.0	f-t	53.5	h-r	4.50	e-p	62	i-s	0.60	n-x	0.59	h-q
Moo Chow W	Warner Seeds, Inc.	F. Sorghum	ML	N	N	3.60	r	35.0	c-n	55.3	d-m	4.73	c-k	62	k-s	0.58	r-y	0.57	k-r
2-Way	Warner Seeds, Inc.	F. Sorghum	ML	N	N	6.33	a-o	33.8	f-u	51.6	i-w	4.27	g-s	61	m-s	0.59	o-x	0.57	k-r

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	% Crude Protein	% ADF	% NDF	% Lignin	% TDN	NEL, Mcal/lb	NEM, Mcal/lb							
2-Way SRS	Warner Seeds, Inc.	F. Sorghum	ML	N	N	4.93	i-r	31.9	j-A	50.0	k-B	4.40	f-q	62	j-s	0.61	j-x	0.59	h-r
2-Way F-104	Warner Seeds, Inc.	F. Sorghum	L	N	N	6.83	a-n	29.6	o-D	47.2	p-D	4.43	f-q	65	d-p	0.66	c-r	0.65	b-l
WXF-03451	Warner Seeds, Inc.	Sorghum/Sudan	M	Y	N	6.30	a-o	31.4	l-C	50.7	j-z	3.93	k-y	66	c-m	0.65	d-r	0.66	a-k
Sweet Bee	Warner Seeds, Inc.	F. Sorghum	ME	N	N	7.07	a-l	26.4	C-F	41.9	C-F	3.43	s-A	68	a-g	0.71	a-f	0.70	a-f
Sweet Bee Sterile II	Warner Seeds, Inc.	F. Sorghum	ME	N	Y	5.97	a-q	29.9	o-D	47.6	o-D	4.20	i-u	65	e-q	0.64	d-t	0.63	e-p
Check 1(A571)	Tx. Agri. Exp. Stat.	Grain Sorghum	M	N	N	7.40	a-g	29.1	r-D	44.4	w-F	4.10	j-v	67	a-k	0.68	a-m	0.67	a-j
Check 2 (NC+8R18)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	7.50	a-f	22.9	F	37.6	F	3.77	m-A	71	a-d	0.74	a	0.74	ab
Check 3 (84G62)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	7.87	a-d	23.5	EF	39.0	EF	3.57	q-A	70	a-e	0.73	abc	0.72	abc
Rio	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	4.80	l-r	30.5	m-C	48.2	m-D	3.77	m-A	68	a-i	0.67	a-p	0.67	a-j
Keller	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	6.63	a-o	30.5	m-C	48.9	l-C	4.17	i-v	65	d-p	0.64	d-s	0.64	c-n
Della	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	4.97	i-r	33.1	h-w	52.7	i-t	4.03	k-w	64	f-q	0.62	h-w	0.62	f-q
DeKalb FS 25E	Monsanto	F. Sorghum	L	N	N	6.50	a-o	32.2	i-z	50.7	j-z	4.07	j-w	64	f-r	0.62	h-w	0.61	g-q
Red Top Plus	Production Plus	F. Sorghum	ML	Y	N	6.60	a-o	28.4	v-D	45.2	u-E	3.10	yzA	69	a-f	0.69	a-i	0.69	a-g
Silex BMR 501	Sharp Bros. Seed	F. Sorghum	M	Y	N	5.37	e-r	34.3	d-q	54.6	e-o	4.07	j-w	65	e-q	0.61	j-x	0.62	f-q
Garst 320	Garst Seed Company	F. Sorghum	M	N	N	6.50	a-o	29.6	o-D	47.7	o-D	4.40	f-q	64	f-r	0.64	d-t	0.62	f-q
Dry Stalk	Production Plus	Sorghum/Sudan	M	Y	N	6.80	a-n	31.6	k-B	50.0	k-A	4.17	i-v	62	k-s	0.61	k-x	0.59	i-r
Special Effect	Production Plus	Sorghum/Sudan	ML	N	M	8.20	a	26.9	A-F	44.7	v-E	3.93	k-y	67	a-j	0.68	a-l	0.68	a-i
Nutri+Plus BMR	Production Plus	Sorghum/Sudan	ML	Y	N	8.17	a	31.1	l-C	49.1	l-C	4.13	i-v	64	f-r	0.63	f-u	0.62	f-q
Test Average						6.20		31.4		50.2		4.19		64		0.63		0.62	
LSD (P=.05)						1.785		3.966		5.73		0.681		4.306		0.064		0.071	
Standard Deviation						1.104		2.453		3.544		0.421		2.663		0.039		0.044	
CV						17.81		7.81		7.06		10.07		4.14		6.25		7.05	

¹⁾ Variety information provided by seed companies. Male sterile entries were cross pollinated by other varieties.

²⁾ Means followed by the same letter do not significantly differ at (P=0.05).

Table 3. 2006 Comparison of sorghum hybrids for agronomic characteristics, yield and nutrient composition.

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	NEG, Mcal/lb		% Ca		% P		% Mg		% K		% S		% IVTD	
Mega Green	Walter Moss Seed Co.	Sorghum/Sudan	PS	N	N	0.21	xy	0.24	a-g	0.18	a-i	0.15	c-i	2.03	a	0.11	b-l	69.3	yz
Mega Green BMR	Walter Moss Seed Co.	Sorghum/Sudan	PS	Y	N	0.33	k-u	0.22	b-g	0.19	a-i	0.19	a-i	1.61	b-m	0.10	d-l	77.0	j-t
811F	Pioneer Hi-Bred Int.	F. Sorghum	ML	N	PS	0.25	u-y	0.23	a-g	0.15	ij	0.13	e-i	1.96	ab	0.10	d-l	71.7	u-z
Pacesetter BMR	Richardson Seeds	F. Sorghum	PS	Y	N	0.29	r-w	0.25	a-g	0.15	hij	0.17	a-i	1.66	a-j	0.09	g-l	73.7	r-y
BMR Gold III	Scott Seed Co.	Sorghum/Sudan	PS	Y	N	0.29	r-w	0.18	efg	0.18	a-i	0.15	c-i	1.68	a-h	0.11	b-l	75.7	m-v
Premium Stock LS	Scott Seed Co.	Sorghum/Sudan	PS	N	N	0.22	v-y	0.22	c-g	0.18	b-j	0.13	d-i	1.68	a-h	0.10	f-l	71.3	v-z
Sordan Headless	Sorghum Partners	Sorghum/Sudan	PS	N	N	0.22	wxy	0.24	a-g	0.17	d-j	0.13	e-i	1.83	a-f	0.09	i-l	70.0	xyz
Trudan Headless	Sorghum Partners	Sudangrass	PS	N	N	0.22	wxy	0.23	a-g	0.15	ij	0.14	c-i	1.50	d-p	0.08	l	68.7	z
Trudan Headless BMR	Sorghum Partners	Sudangrass	PS	Y	N	0.29	q-w	0.25	a-g	0.20	a-i	0.16	a-i	1.84	a-e	0.12	a-k	75.0	o-w
Sucrosse 9-R PS	Warner Seeds	Sorghum/Sudan	PS	N	N	0.19	y	0.21	c-g	0.12	j	0.13	d-i	1.61	b-m	0.11	b-l	69.7	xyz
Nutrigreen BMR	Warner Seeds	F. Sorghum	PS	Y	N	0.30	p-v	0.21	c-g	0.16	f-j	0.14	c-i	1.95	abc	0.09	f-l	77.5	i-t
Sugargraze Ultra	Coffey Forage Seeds	Sorghum/Sudan	PS	N	N	0.22	v-y	0.24	a-g	0.15	g-j	0.15	c-i	1.89	a-d	0.09	g-l	70.7	w-z
GW 7828 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	Y	0.45	a-d	0.24	a-g	0.19	a-i	0.21	a-h	1.15	n-q	0.13	a-i	83.7	a-d
GW 8528 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	N	0.47	a	0.27	a-g	0.23	abc	0.21	a-h	1.20	l-q	0.15	abc	84.7	ab
GW X7181 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	0.36	g-s	0.28	a-g	0.22	a-e	0.22	a-f	1.43	e-p	0.12	a-j	78.3	f-q
GW X7191 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	0.36	e-r	0.26	a-g	0.23	abc	0.21	a-h	1.50	d-p	0.12	a-l	78.7	e-p
Silmaker 6000	Frontier Hybrids	F. Sorghum	M	N	N	0.40	a-m	0.21	c-g	0.20	a-i	0.19	a-i	1.29	h-q	0.10	d-l	79.7	c-o
Silmaker 6500	Frontier Hybrids	F. Sorghum	M	N	N	0.36	e-r	0.26	a-g	0.20	a-i	0.19	a-i	1.38	g-q	0.11	c-l	77.7	h-s
Silmaker 7000	Frontier Hybrids	F. Sorghum	M	N	N	0.41	a-k	0.24	a-g	0.21	a-h	0.20	a-i	1.39	g-q	0.11	c-l	80.7	b-l
23402	Garrison & Townsend	F. Sorghum	ML	Y	Y	0.41	a-j	0.24	a-g	0.19	a-i	0.16	a-i	1.62	b-l	0.16	a	83.0	a-f
24213	Garrison & Townsend	F. Sorghum	M	Y	N	0.38	b-o	0.21	c-g	0.23	abc	0.18	a-i	1.41	f-q	0.12	a-k	80.0	b-n
23419	Garrison & Townsend	F. Sorghum	M	Y	N	0.40	a-l	0.24	a-g	0.20	a-i	0.20	a-i	1.33	h-q	0.12	a-j	81.3	a-k
991005	Garrison & Townsend	F. Sorghum	ME	Y	N	0.40	a-m	0.23	a-g	0.16	f-j	0.12	f-i	1.31	h-q	0.12	a-k	82.7	a-g
991021	Garrison & Townsend	F. Sorghum	ME	Y	N	0.42	a-i	0.26	a-g	0.24	a	0.20	a-i	1.61	b-m	0.14	a-d	84.3	ab
27681	Garrison & Townsend	F. Sorghum	ML	Y	N	0.42	a-i	0.31	a-e	0.23	a-d	0.16	a-i	1.56	b-n	0.13	a-i	84.7	ab
Garst 325	Garst Seed Company	F. Sorghum	ML	N	N	0.35	h-t	0.25	a-g	0.17	b-j	0.11	hi	1.50	d-p	0.12	a-k	78.5	f-q
Exp 2211X	Garst Seed Company	F. Sorghum	ME	N	N	0.38	b-o	0.21	c-g	0.18	b-j	0.19	a-i	1.10	pq	0.10	e-l	79.3	d-p
Exp N318X	Garst Seed Company	F. Sorghum	M	N	N	0.35	g-t	0.24	a-g	0.20	a-i	0.19	a-i	1.37	g-q	0.11	c-l	77.7	h-s
DeKalb FS5	Monsanto	F. Sorghum	M	N	N	0.39	a-n	0.30	a-f	0.21	a-h	0.22	a-f	1.17	n-q	0.12	a-l	80.0	b-n
DeKalb DKS 59-09	Monsanto	F. Sorghum	M	N	N	0.40	a-m	0.23	b-g	0.19	a-i	0.13	d-i	1.48	d-p	0.14	a-e	82.3	a-h
DeKalb SX17	Monsanto	Sorghum/Sudan	M	N	Y	0.30	o-u	0.23	b-g	0.12	j	0.14	c-i	1.43	e-p	0.09	h-l	75.3	n-v
DeKalb St6	Monsanto	Sorghum/Sudan	M	N	Y	0.27	t-x	0.30	a-f	0.20	a-i	0.16	a-i	1.43	e-p	0.12	a-l	73.3	s-y
Millennium BMR	Walter Moss Seed Co.	F. Sorghum	L	Y	N	0.43	a-g	0.23	a-g	0.20	a-i	0.20	a-i	1.28	h-q	0.11	b-l	84.0	abc
SU-2-LM	Walter Moss Seed Co.	Sorghum/Sudan	L	N	N	0.28	s-x	0.31	a-e	0.16	f-j	0.15	c-i	1.38	g-q	0.10	e-l	74.0	q-x
38 Special	Walter Moss Seed Co.	Sorghum/Sudan	L	Y	N	0.33	k-u	0.25	a-g	0.16	f-j	0.12	ghi	1.50	d-p	0.11	c-l	78.3	f-q

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	NEG, Mcal/lb	% Ca	% P	% Mg	% K	% S	% IVTD							
NC+ Nutri-Choice II	NC+ Hybrids	F. Sorghum	ML	N	N	0.36	e-r	0.23	a-g	0.20	a-i	0.19	a-i	1.40	f-q	0.10	e-l	78.0	g-r
NC+ Nutri-Cane II	NC+ Hybrids	F. Sorghum	M	N	N	0.40	a-l	0.27	a-g	0.20	a-i	0.23	a-d	1.22	k-q	0.12	a-l	82.0	a-i
NC+ X825528F X	NC+ Hybrids	F. Sorghum	ML	Y	N	0.42	a-h	0.26	a-g	0.19	a-i	0.21	a-h	1.39	g-q	0.14	a-f	84.3	ab
NC+ X718228F X	NC+ Hybrids	F. Sorghum	ML	Y	N	0.45	abc	0.27	a-g	0.20	a-i	0.22	a-g	1.22	l-q	0.13	a-i	83.7	a-d
979	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	Y	0.33	j-t	0.27	a-g	0.19	a-i	0.16	a-i	1.55	b-n	0.12	a-l	77.7	h-s
877F	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	N	0.36	g-s	0.23	a-g	0.20	a-i	0.21	a-h	1.42	e-p	0.12	a-l	77.3	i-t
PU 8167 X	Purdue Univ.	F. Sorghum	L	N	N	0.34	i-t	0.22	b-g	0.19	a-i	0.19	a-i	1.54	c-o	0.10	d-l	77.7	h-s
PU 8168X	Purdue Univ.	F. Sorghum	L	N	N	0.32	m-u	0.27	a-g	0.20	a-i	0.15	b-i	1.45	e-p	0.09	g-l	76.3	l-t
PU 8204X	Purdue Univ.	F. Sorghum	L	Y	N	0.42	a-i	0.19	efg	0.21	a-g	0.19	a-i	1.39	g-q	0.13	a-h	83.0	a-f
PU 8206X	Purdue Univ.	F. Sorghum	L	Y	N	0.41	a-j	0.26	a-g	0.20	a-i	0.19	a-i	1.61	b-l	0.13	a-g	83.0	a-f
PU 8165X	Purdue Univ.	F. Sorghum	L	Y	N	0.41	a-j	0.28	a-g	0.22	a-e	0.18	a-i	1.68	a-h	0.13	a-h	83.0	a-f
Silo 700D	Richardson Seeds	F. Sorghum	ML	N	N	0.41	a-k	0.22	c-g	0.20	a-i	0.19	a-i	1.19	m-q	0.11	c-l	80.0	b-n
Bundle King BMR	Richardson Seeds	F. Sorghum	L	Y	Y	0.38	c-q	0.28	a-g	0.18	b-j	0.19	a-i	1.61	b-m	0.13	a-j	80.0	b-n
Dairy Master BMR	Richardson Seeds	F. Sorghum	ML	Y	N	0.38	c-p	0.23	a-g	0.19	a-i	0.20	a-i	1.43	e-p	0.10	d-l	80.3	b-m
Sweeter 'N Honey BMR	Richardson Seeds	F. Sorghum	M	Y	N	0.44	a-f	0.28	a-g	0.19	a-i	0.19	a-i	1.33	h-q	0.13	a-g	83.0	a-f
BMR Gold I	Scott Seed Co.	F. Sorghum	M	Y	N	0.34	i-t	0.22	b-g	0.17	e-j	0.13	e-i	1.47	d-p	0.12	a-k	78.3	f-q
S.S. Silage	Scott Seed Co.	F. Sorghum	M	N	N	0.32	n-u	0.20	c-g	0.17	d-j	0.20	a-i	1.28	h-q	0.08	kl	75.7	m-v
BMR Gold	Scott Seed Co.	F. Sorghum	ML	Y	N	0.41	a-k	0.23	a-g	0.23	abc	0.21	a-h	1.56	b-n	0.14	a-e	83.0	a-f
BMR Gold II	Scott Seed Co.	Sorghum/Sudan	M	Y	N	0.39	a-n	0.31	a-e	0.23	a-d	0.22	a-f	1.44	e-p	0.14	a-d	81.3	a-k
Canex BMR 208	Sharp Bros. Seed	F. Sorghum	ME	Y	N	0.46	ab	0.28	a-g	0.22	a-e	0.22	a-f	1.25	i-q	0.15	ab	84.7	ab
Canex	Sharp Bros. Seed	F. Sorghum	ME	N	Y	0.42	a-i	0.26	a-g	0.21	a-h	0.25	ab	1.17	n-q	0.11	b-l	82.7	a-g
Canex II	Sharp Bros. Seed	F. Sorghum	M	N	Y	0.41	a-k	0.22	b-g	0.22	a-f	0.18	a-i	1.24	j-q	0.12	a-k	81.3	a-k
Silex BMR 502	Sharp Bros. Seed	F. Sorghum	ML	Y	Y	0.47	a	0.24	a-g	0.21	a-h	0.23	a-e	1.15	n-q	0.12	a-j	85.3	a
Grazex BMR 718	Sharp Bros. Seed	Sorghum/Sudan	M	Y	N	0.30	p-v	0.22	c-g	0.20	a-i	0.18	a-i	1.54	c-o	0.11	c-l	74.7	p-w
Grazex II	Sharp Bros. Seed	Sorghum/Sudan	M	N	Y	0.32	l-u	0.26	a-g	0.21	a-h	0.23	abc	1.14	n-q	0.10	e-l	74.0	q-x
BMR 106	Seed Resource	F. Sorghum	M	Y	N	0.41	a-j	0.27	a-g	0.21	a-g	0.21	a-h	1.42	e-p	0.11	b-l	81.7	a-j
FS 515 HQ	Seed Resource	F. Sorghum	ML	N	N	0.30	o-u	0.20	c-g	0.18	b-j	0.15	c-i	1.34	h-q	0.09	g-l	74.7	p-w
FS 555	Seed Resource	F. Sorghum	L	N	N	0.30	o-u	0.28	a-g	0.18	a-i	0.21	a-h	1.52	d-p	0.10	d-l	76.0	l-u
NK 300	Sorghum Partners	F. Sorghum	M	N	N	0.37	d-r	0.27	a-g	0.21	a-g	0.18	a-i	1.45	e-p	0.11	c-l	78.0	g-r
HiKane II	Sorghum Partners	F. Sorghum	E	N	N	0.38	b-o	0.26	a-g	0.21	a-f	0.26	a	1.25	i-q	0.12	a-k	80.3	b-m
SS 405	Sorghum Partners	Sorghum/Sudan	L	N	N	0.25	u-y	0.24	a-g	0.17	c-j	0.18	a-i	1.67	a-i	0.10	f-l	73.0	t-y
Sordan 79	Sorghum Partners	Sorghum/Sudan	M	N	N	0.33	j-t	0.22	c-g	0.21	a-g	0.18	a-i	1.47	d-p	0.11	c-l	76.0	l-u
Trudan 8	Sorghum Partners	Sudangrass	M	N	N	0.28	s-x	0.31	a-d	0.21	a-g	0.20	a-i	1.46	e-p	0.11	b-l	73.0	t-y
SuperSile 30	Triumph Seed Co.	F. Sorghum		N	N	0.33	k-u	0.26	a-g	0.19	a-i	0.19	a-i	1.38	g-q	0.10	e-l	76.3	l-t
Sucrosse 6-R BMR	Warner Seeds, Inc.	F. Sorghum	M	Y	N	0.44	a-e	0.23	a-g	0.21	a-g	0.19	a-i	1.43	e-p	0.13	a-i	84.3	ab
Red Top Kandy	Warner Seeds, Inc.	F. Sorghum	L	N	N	0.33	j-t	0.29	a-f	0.18	a-i	0.20	a-i	1.43	e-p	0.09	h-l	77.3	i-t
Moo Chow W	Warner Seeds, Inc.	F. Sorghum	ML	N	N	0.31	n-u	0.26	a-g	0.17	d-j	0.17	a-i	1.29	h-q	0.09	h-l	75.3	n-v
2-Way	Warner Seeds, Inc.	F. Sorghum	ML	N	N	0.32	n-u	0.21	c-g	0.18	b-j	0.12	f-i	1.65	a-j	0.10	d-l	76.7	k-t

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾													
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	NEG, Mcal/lb	% Ca	% P	% Mg	% K	% S	% IVTD							
2-Way SRS	Warner Seeds, Inc.	F. Sorghum	ML	N	N	0.33	j-t	0.29	a-f	0.15	g-j	0.16	a-i	1.31	h-q	0.08	kl	76.3	l-t
2-Way F-104	Warner Seeds, Inc.	F. Sorghum	L	N	N	0.38	b-o	0.19	d-g	0.17	e-j	0.13	d-i	1.27	h-q	0.10	e-l	79.0	e-p
WXF-03451	Warner Seeds, Inc.	Sorghum/Sudan	M	Y	N	0.39	b-n	0.25	a-g	0.20	a-i	0.20	a-i	1.50	d-p	0.12	a-l	81.7	a-j
Sweet Bee	Warner Seeds, Inc.	F. Sorghum	ME	N	N	0.43	a-g	0.28	a-g	0.20	a-i	0.22	a-g	1.12	opq	0.12	a-j	81.7	a-j
Sweet Bee Sterile II	Warner Seeds, Inc.	F. Sorghum	ME	N	Y	0.37	d-r	0.27	a-g	0.19	a-i	0.21	a-h	1.39	g-q	0.10	e-l	78.7	e-p
Check 1(A571)	Tx. Agri. Exp. Stat.	Grain Sorghum	M	N	N	0.40	a-l	0.16	g	0.20	a-i	0.13	d-i	1.25	i-q	0.09	h-l	80.3	b-m
Check 2 (NC+8R18)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	0.46	ab	0.23	b-g	0.20	a-i	0.20	a-i	0.99	q	0.10	e-l	83.3	a-e
Check 3 (84G62)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	0.45	abc	0.24	a-g	0.22	a-e	0.18	a-i	1.36	g-q	0.11	b-l	82.7	a-g
Rio	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	0.40	a-m	0.32	abc	0.18	a-i	0.19	a-i	1.38	g-q	0.08	jkl	81.3	a-k
Keller	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	0.37	c-q	0.36	a	0.19	a-i	0.23	a-d	1.19	m-q	0.12	a-l	79.0	e-p
Della	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	0.35	g-t	0.32	abc	0.15	hij	0.18	a-i	1.33	h-q	0.11	b-l	78.7	e-p
DeKalb FS 25E	Monsanto	F. Sorghum	L	N	N	0.35	h-t	0.27	a-g	0.16	f-j	0.10	i	1.41	f-q	0.10	e-l	77.3	i-t
Red Top Plus	Production Plus	F. Sorghum	ML	Y	N	0.42	a-h	0.24	a-g	0.20	a-i	0.21	a-h	1.67	a-i	0.13	a-g	84.3	ab
Silex BMR 501	Sharp Bros. Seed	F. Sorghum	M	Y	N	0.36	g-s	0.29	a-f	0.19	a-i	0.19	a-i	1.67	a-i	0.11	c-l	79.0	e-p
Garst 320	Garst Seed Company	F. Sorghum	M	N	N	0.36	f-s	0.17	fg	0.19	a-i	0.18	a-i	1.36	g-q	0.09	g-l	78.3	f-q
Dry Stalk	Production Plus	Sorghum/Sudan	M	Y	N	0.33	k-u	0.23	a-g	0.23	abc	0.17	a-i	1.64	a-k	0.11	b-l	77.3	i-t
Special Effect	Production Plus	Sorghum/Sudan	ML	N	M	0.41	a-k	0.35	ab	0.23	abc	0.21	a-h	1.27	h-q	0.14	a-e	80.3	b-m
Nutri+Plus BMR	Production Plus	Sorghum/Sudan	ML	Y	N	0.36	g-s	0.26	a-g	0.23	ab	0.18	a-i	1.77	a-g	0.14	a-e	78.7	e-p
Test Average						0.36		0.25		0.19		0.18		1.44		0.11		78.7	
LSD (P=.05)						0.064		0.099		0.046		0.078		0.331		0.033		3.673	
Standard Deviation						0.04		0.061		0.028		0.048		0.205		0.02		2.272	
CV						11.07		24.53		14.64		26.7		14.18		18.21		2.89	

¹⁾ Variety information provided by seed companies. Male sterile entries were cross pollinated by other varieties.

²⁾ Means followed by the same letter do not significantly differ at (P=0.05).

Table 3. 2006 Comparison of sorghum hybrids for agronomic characteristics, yield and nutrient composition.

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾											
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	RFV		% Starch		NDFD 48hr		% Sugar		RFQ	Hay Crop, Milk lbs/Ton DM		
Mega Green	Walter Moss Seed Co.	Sorghum/Sudan	PS	N	N	85	D	3.33	IJ	51.7	s-x	16.0	k-x	83.0	stu	1,954	CD
Mega Green BMR	Walter Moss Seed Co.	Sorghum/Sudan	PS	Y	N	104	r-D	9.37	w-J	58.7	d-r	18.6	f-r	103.7	j-u	2,467	o-z
811F	Pioneer Hi-Bred Int.	F. Sorghum	ML	N	PS	86	CD	3.90	G-J	54.3	n-x	15.7	l-x	94.0	p-u	2,102	z-D
Pacesetter BMR	Richardson Seeds	F. Sorghum	PS	Y	N	91	y-D	4.50	E-J	57.3	h-u	19.9	c-o	95.7	p-u	2,303	v-C
BMR Gold III	Scott Seed Co.	Sorghum/Sudan	PS	Y	N	98	v-D	3.13	IJ	57.7	g-t	23.3	a-e	95.3	p-u	2,269	x-D
Premium Stock LS	Scott Seed Co.	Sorghum/Sudan	PS	N	N	88	BCD	4.27	F-J	53.3	q-x	18.6	e-r	78.7	tu	2,027	BCD
Sordan Headless	Sorghum Partners	Sorghum/Sudan	PS	N	N	90	z-D	4.70	D-J	50.7	vw-x	17.0	j-v	84.7	stu	2,038	BCD
Trudan Headless	Sorghum Partners	Sudangrass	PS	N	N	89	A-D	6.83	B-J	49.3	w-x	17.4	i-u	84.7	stu	2,068	A-D
Trudan Headless BMR	Sorghum Partners	Sudangrass	PS	Y	N	96	w-D	3.47	HIJ	57.0	h-v	19.2	e-p	107.3	i-u	2,290	w-D
Sucrosse 9-R PS	Warner Seeds	Sorghum/Sudan	PS	N	N	86	CD	3.47	HIJ	51.3	t-x	17.2	j-v	75.3	u	1,931	D
Nutrigreen BMR	Warner Seeds	F. Sorghum	PS	Y	N	91	z-D	2.45	J	63.0	a-h	22.4	a-h	97.0	o-u	2,364	t-B
Sugargraze Ultra	Coffey Forage Seeds	Sorghum/Sudan	PS	N	N	91	z-D	5.30	C-J	51.7	s-x	18.3	f-s	84.3	stu	2,066	A-D
GW 7828 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	Y	140	c-k	20.03	d-r	64.3	a-e	18.5	f-r	138.0	c-p	3,042	a-f
GW 8528 F BMR	Crosbyton Seed Co.	F. Sorghum	M	Y	N	155	a-d	24.73	c-h	63.7	a-g	15.6	m-x	166.7	a-e	3,190	ab
GW X7181 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	117	h-z	16.87	h-w	57.7	g-t	13.1	t-B	122.3	e-t	2,608	i-x
GW X7191 G BMR	Crosbyton Seed Co.	Sorghum/Sudan	M	Y	Y	121	f-w	15.93	j-y	56.7	i-v	15.5	n-x	122.0	f-t	2,648	g-x
Silmaker 6000	Frontier Hybrids	F. Sorghum	M	N	N	144	b-h	27.77	bcd	54.0	o-x	6.6	EFG	131.3	d-r	2,857	a-o
Silmaker 6500	Frontier Hybrids	F. Sorghum	M	N	N	134	c-o	23.77	c-j	52.3	r-x	6.7	EFG	120.3	f-t	2,691	f-v
Silmaker 7000	Frontier Hybrids	F. Sorghum	M	N	N	137	c-m	26.77	b-e	57.3	h-u	7.9	C-G	141.0	c-o	2,868	a-m
23402	Garrison & Townsend	F. Sorghum	ML	Y	Y	135	c-n	16.73	i-w	63.0	a-h	18.8	e-q	163.3	a-f	2,865	a-m
24213	Garrison & Townsend	F. Sorghum	M	Y	N	130	c-t	18.03	f-u	58.3	e-r	16.9	j-v	121.7	f-t	2,739	d-t
23419	Garrison & Townsend	F. Sorghum	M	Y	N	133	c-p	18.97	e-t	60.3	a-o	17.1	j-v	132.7	c-q	2,826	a-q
991005	Garrison & Townsend	F. Sorghum	ME	Y	N	137	c-m	18.70	f-t	61.7	a-k	18.0	g-s	142.7	c-n	2,848	a-p
991021	Garrison & Townsend	F. Sorghum	ME	Y	N	137	c-m	18.53	f-t	64.7	a-d	17.8	h-s	141.3	c-o	2,923	a-j
27681	Garrison & Townsend	F. Sorghum	ML	Y	N	132	c-q	15.43	k-z	66.0	ab	20.5	c-l	147.3	a-j	2,953	a-j
Garst 325	Garst Seed Company	F. Sorghum	ML	N	N	119	g-x	16.75	i-w	57.0	h-v	15.4	n-x	119.0	f-u	2,570	j-x
Exp 2211X	Garst Seed Company	F. Sorghum	ME	N	N	137	c-m	23.63	c-j	54.3	n-x	14.5	p-y	128.0	d-s	2,744	d-t
Exp N318X	Garst Seed Company	F. Sorghum	M	N	N	124	f-v	20.17	d-q	54.7	n-w	13.0	u-B	116.7	g-u	2,638	h-x
DeKalb FS5	Monsanto	F. Sorghum	M	N	N	134	c-o	21.57	c-n	56.7	i-v	16.9	j-v	133.3	c-q	2,810	b-q
DeKalb DKS 59-09	Monsanto	F. Sorghum	M	N	N	145	b-g	25.40	c-f	58.0	f-s	10.6	y-E	157.7	a-h	2,858	a-n
DeKalb SX17	Monsanto	Sorghum/Sudan	M	N	Y	99	u-D	8.00	z-J	56.7	i-v	20.0	c-n	101.7	k-u	2,384	s-B
DeKalb St6	Monsanto	Sorghum/Sudan	M	N	Y	96	w-D	11.90	s-F	53.7	p-x	12.5	v-B	97.0	o-u	2,262	x-D
Millennium BMR	Walter Moss Seed Co.	F. Sorghum	L	Y	N	145	b-g	18.20	f-u	64.0	a-f	22.9	a-f	142.7	c-n	3,002	a-h
SU-2-LM	Walter Moss Seed Co.	Sorghum/Sudan	L	N	N	103	t-D	7.50	A-J	53.0	r-x	20.1	c-n	100.3	l-u	2,316	u-C
38 Special	Walter Moss Seed Co.	Sorghum/Sudan	L	Y	N	113	k-C	11.77	s-F	59.7	c-q	18.7	e-r	108.0	i-u	2,526	k-y

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾											
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	RFV		% Starch		NDFD 48hr		% Sugar		RFQ		Hay Crop, Milk lbs/Ton DM	
NC+ Nutri-Choice II	NC+ Hybrids	F. Sorghum	ML	N	N	131	c-s	23.30	c-k	53.3	q-x	9.8	z-F	115.0	h-u	2,702	e-u
NC+ Nutri-Cane II	NC+ Hybrids	F. Sorghum	M	N	N	130	c-t	16.10	j-y	62.0	a-j	22.0	a-i	121.3	f-t	2,848	a-p
NC+ X825528F X	NC+ Hybrids	F. Sorghum	ML	Y	N	134	c-o	17.90	f-u	66.3	a	19.5	e-o	133.7	c-q	2,951	a-j
NC+ X718228F X	NC+ Hybrids	F. Sorghum	ML	Y	N	142	c-i	20.67	d-p	64.0	a-f	18.4	f-r	136.7	c-p	3,045	a-f
979	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	Y	112	l-C	14.10	n-B	57.0	h-v	14.0	r-A	114.3	h-u	2,515	k-y
877F	Pioneer Hi-Bred Int.	Sorghum/Sudan	M	N	N	124	f-v	19.27	e-s	53.7	p-x	14.7	p-y	121.7	f-t	2,660	f-w
PU 8167 X	Purdue Univ.	F. Sorghum	L	N	N	108	n-D	10.37	u-l	58.7	d-r	19.1	e-p	111.3	i-u	2,527	k-y
PU 8168X	Purdue Univ.	F. Sorghum	L	N	N	109	n-D	12.37	q-D	56.3	i-v	17.4	i-u	99.7	l-u	2,452	q-z
PU 8204X	Purdue Univ.	F. Sorghum	L	Y	N	129	c-t	12.15	r-E	64.0	a-f	22.5	a-g	130.5	d-r	2,869	a-m
PU 8206X	Purdue Univ.	F. Sorghum	L	Y	N	123	f-w	9.80	v-J	65.7	abc	24.3	a-d	124.0	e-s	2,810	b-q
PU 8165X	Purdue Univ.	F. Sorghum	L	Y	N	132	c-q	19.43	e-s	63.7	a-g	14.2	q-z	127.7	d-s	2,844	a-p
Silo 700D	Richardson Seeds	F. Sorghum	ML	N	N	144	b-h	25.10	c-g	54.3	n-x	11.6	x-D	125.0	e-s	2,902	a-k
Bundle King BMR	Richardson Seeds	F. Sorghum	L	Y	Y	107	o-D	9.00	w-J	62.5	a-i	19.9	c-o	119.0	f-u	2,635	h-x
Dairy Master BMR	Richardson Seeds	F. Sorghum	ML	Y	N	120	f-w	12.90	p-C	62.0	a-j	22.4	a-h	106.3	i-u	2,706	e-t
Sweeter 'N Honey BMR	Richardson Seeds	F. Sorghum	M	Y	N	142	c-i	20.57	d-p	61.7	a-k	15.4	n-x	157.3	a-h	3,034	a-g
BMR Gold I	Scott Seed Co.	F. Sorghum	M	Y	N	116	i-A	12.43	q-D	58.0	f-s	19.0	e-p	115.3	h-u	2,525	k-y
S.S. Silage	Scott Seed Co.	F. Sorghum	M	N	N	107	n-D	12.33	q-D	54.7	n-w	18.4	f-r	98.3	m-u	2,472	n-z
BMR Gold	Scott Seed Co.	F. Sorghum	ML	Y	N	129	c-t	13.33	o-B	64.7	a-d	20.4	c-l	125.0	e-s	2,792	c-r
BMR Gold II	Scott Seed Co.	Sorghum/Sudan	M	Y	N	126	e-u	16.10	j-y	61.0	a-m	18.8	e-q	128.0	d-s	2,753	c-t
Canex BMR 208	Sharp Bros. Seed	F. Sorghum	ME	Y	N	156	abc	23.33	c-k	62.3	a-i	17.4	i-u	161.0	a-g	3,138	abc
Canex	Sharp Bros. Seed	F. Sorghum	ME	N	Y	141	c-i	22.13	c-m	60.7	a-n	18.2	f-s	144.7	b-l	2,967	a-i
Canex II	Sharp Bros. Seed	F. Sorghum	M	N	Y	141	c-j	19.07	e-t	57.7	g-t	20.2	c-m	120.7	f-t	2,895	a-l
Silex BMR 502	Sharp Bros. Seed	F. Sorghum	ML	Y	Y	147	b-f	22.17	c-m	66.3	a	17.4	i-u	170.0	a-d	3,202	a
Grazex BMR 718	Sharp Bros. Seed	Sorghum/Sudan	M	Y	N	104	s-D	11.57	s-G	54.3	n-x	16.3	k-w	100.3	l-u	2,370	t-B
Grazex II	Sharp Bros. Seed	Sorghum/Sudan	M	N	Y	119	f-w	20.23	d-q	48.3	x	8.9	B-G	116.7	g-u	2,520	k-y
BMR 106	Seed Resource	F. Sorghum	M	Y	N	138	c-m	17.63	f-v	61.3	a-l	18.1	g-s	145.7	b-k	2,886	a-m
FS 515 HQ	Seed Resource	F. Sorghum	ML	N	N	112	m-D	21.23	c-o	53.3	q-x	7.1	EFG	98.0	n-u	2,417	r-A
FS 555	Seed Resource	F. Sorghum	L	N	N	114	j-B	11.17	t-H	54.0	o-x	20.6	c-k	100.7	k-u	2,414	r-A
NK 300	Sorghum Partners	F. Sorghum	M	N	N	132	c-q	22.40	c-m	54.0	o-x	8.2	C-G	134.0	c-q	2,681	f-v
HiKane II	Sorghum Partners	F. Sorghum	E	N	N	129	c-t	19.30	e-s	58.7	d-r	17.4	i-u	119.7	f-u	2,778	c-r
SS 405	Sorghum Partners	Sorghum/Sudan	L	N	N	92	x-D	8.80	x-J	54.7	n-w	17.7	h-t	87.3	r-u	2,157	y-D
Sordan 79	Sorghum Partners	Sorghum/Sudan	M	N	N	121	f-w	18.27	f-u	52.7	r-x	13.6	s-A	109.0	i-u	2,574	j-x
Trudan 8	Sorghum Partners	Sudangrass	M	N	N	105	q-D	15.07	l-A	51.0	u-x	11.9	w-C	104.7	j-u	2,307	v-C
SuperSile 30	Triumph Seed Co.	F. Sorghum		N	N	115	i-B	17.40	g-v	54.0	o-x	15.2	o-x	105.0	j-u	2,524	k-y
Sucrosse 6-R BMR	Warner Seeds, Inc.	F. Sorghum	M	Y	N	142	c-i	23.67	c-j	65.0	abc	12.6	v-B	163.3	a-f	3,081	a-e
Red Top Kandy	Warner Seeds, Inc.	F. Sorghum	L	N	N	109	n-D	9.07	w-J	57.7	g-t	22.6	a-g	102.7	j-u	2,506	l-y
Moo Chow W	Warner Seeds, Inc.	F. Sorghum	ML	N	N	104	s-D	10.37	u-l	56.0	j-v	21.2	b-j	90.7	q-u	2,458	p-z
2-Way	Warner Seeds, Inc.	F. Sorghum	ML	N	N	113	k-C	13.63	n-B	55.3	l-w	16.7	j-v	113.7	h-u	2,415	r-A

Variety Information ¹⁾						Nutrient Composition and Dairy One Calculations ²⁾											
Hybrid	Company	Sorghum Type	Mat.	BMR	Male Sterile	RFV	% Starch	NDFD 48hr	% Sugar	RFQ	Hay Crop, Milk lbs/Ton DM						
2-Way SRS	Warner Seeds, Inc.	F. Sorghum	ML	N	N	119	f-w	13.97	n-B	53.0	r-x	20.1	c-n	102.7	j-u	2,562	j-x
2-Way F-104	Warner Seeds, Inc.	F. Sorghum	L	N	N	131	c-r	22.80	c-l	55.0	m-w	9.7	A-F	136.3	c-p	2,740	d-t
WXF-03451	Warner Seeds, Inc.	Sorghum/Sudan	M	Y	N	119	g-x	15.43	k-z	64.0	a-f	17.1	j-v	124.7	e-s	2,766	c-s
Sweet Bee	Warner Seeds, Inc.	F. Sorghum	ME	N	N	152	b-e	24.70	c-h	56.3	i-v	15.4	n-x	176.7	abc	3,002	a-h
Sweet Bee Sterile II	Warner Seeds, Inc.	F. Sorghum	ME	N	Y	128	d-t	18.23	f-u	55.0	m-w	17.8	h-s	114.3	h-u	2,685	f-v
Check 1(A571)	Tx. Agri. Exp. Stat.	Grain Sorghum	M	N	N	139	c-l	28.53	bc	56.3	i-v	5.6	FG	143.3	b-m	2,869	a-m
Check 2 (NC+8R18)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	177	a	36.47	a	55.3	l-w	5.0	G	186.0	ab	3,196	a
Check 3 (84G62)	Tx. Agri. Exp. Stat.	Grain Sorghum	ML	N	N	168	ab	32.97	ab	55.7	k-v	6.6	EFG	189.3	a	3,110	a-d
Rio	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	126	e-v	12.53	q-C	61.3	a-l	25.3	ab	114.0	h-u	2,829	a-q
Keller	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	124	f-v	16.57	i-x	57.0	h-v	19.0	e-p	122.3	e-t	2,708	e-t
Della	Tx. Agri. Exp. Stat.	Sweet Sorghum	M	N	N	112	l-C	7.03	B-J	60.0	b-p	25.9	a	108.0	i-u	2,623	h-x
DeKalb FS 25E	Monsanto	F. Sorghum	L	N	N	118	g-y	11.57	s-G	55.7	k-v	19.7	d-o	116.0	h-u	2,583	i-x
Red Top Plus	Production Plus	F. Sorghum	ML	Y	N	138	c-m	12.77	p-C	64.7	a-d	24.3	abc	143.7	b-l	2,935	a-j
Silex BMR 501	Sharp Bros. Seed	F. Sorghum	M	Y	N	106	p-D	8.47	y-J	61.3	a-l	21.5	a-j	110.0	i-u	2,572	j-x
Garst 320	Garst Seed Company	F. Sorghum	M	N	N	129	c-t	24.47	c-i	54.0	o-x	7.4	D-G	117.3	g-u	2,663	f-w
Dry Stalk	Production Plus	Sorghum/Sudan	M	Y	N	120	f-w	14.70	m-B	54.0	o-x	17.0	j-v	113.0	h-u	2,495	m-y
Special Effect	Production Plus	Sorghum/Sudan	ML	N	M	143	c-i	23.23	c-k	55.0	m-w	12.9	u-B	151.3	a-i	2,890	a-l
Nutri+Plus BMR	Production Plus	Sorghum/Sudan	ML	Y	N	123	f-w	15.07	l-A	57.0	h-v	15.6	m-x	125.7	e-s	2,597	i-x
Test Average						122		15.88		57.7		16.6		121.7		2,651	
LSD (P=.05)						21.565		6.252		4.954		3.711		35.125		305.377	
Standard Deviation						13.339		3.867		3.064		2.295		21.727		188.893	
CV						10.9		24.35		5.31		13.83		17.86		7.13	

¹⁾ Variety information provided by seed companies. Male sterile entries were cross pollinated by other varieties.

²⁾ Means followed by the same letter do not significantly differ at (P=0.05).